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ABSTRACT OF THE DISCLOSURE

A method of on-line authentication includes having a user present one or more fingerprints for authentication during an on-line transaction, such as an Internet transaction. The user provides the fingerprints by placing the appropriate finger on the print pad of the fingerprint reader associated with the client computer that the user is using. The method includes receiving through the computer network a communication indicating that authentication is needed, obtaining a first number that indicates how many fingerprints will be requested for authentication, randomly selecting which fingerprints will be requested, sending through the computer network one or more requests for entry of the randomly selected fingerprints, receiving fingerprint data through the computer network in response to the one or more requests for entry of the randomly selected fingerprints, and comparing the received fingerprint data to fingerprint data stored in a database.